

Fact Sheet



For Final Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on June 11, 2012.

Permit Number: **R30-03900102-2012**

Application Received: **June 3, 2013**

Plant Identification Number: **03-54-039-00102**

Permittee: **Bayer MaterialScience LLC**

Facility Name: **South Charleston Plant**

Mailing Address: **501 Second Avenue, South Charleston, WV 25303**

Permit Action Number: *MM01* Revised: *September 9, 2013*

Physical Location:	South Charleston, Kanawha County, West Virginia
UTM Coordinates:	439.65 km Easting • 4247.00 km Northing • Zone 17
Directions:	Traveling on I-64 West from Charleston, take the Montrose Exit (Exit 56) and turn right onto Montrose. Straight ahead is the main plant entrance at the corner of Montrose and MacCorkle Avenue.

Facility Description

The Bayer South Charleston Plant is a chemical manufacturing facility which produces polyether and polymer polyols. The facility is characterized by SIC and NAICS codes 2869 and 325199, respectively.

This minor modification reflects the changes to Permit R13-2561I in the Title V Permit. Permit R13-2561I is for the change of service for storage Tank T-687. Tank T-687 is a 48,000 gallon storage tank that will be converted from storing polymer Polyol to storing styrene. The maximum permitted styrene throughput for the process will not be increased; thus, the maximum potential styrene emissions will not increase. T-687 is currently not subject to a NSPS nor would it be for the proposed service change. True vapor pressure for styrene at 18 °C or 64.4 °F is 0.097psi. In accordance with 45CSR§21-37, storage Tank 687 will now be subject to a leak detection and repair program.

Emissions Summary

Plantwide Emissions Summary [Tons per Year]			
Regulated Pollutants	Potential Emissions		
	Initial	MM01	Total
Carbon Monoxide (CO)	0.71	0	0.71
Nitrogen Oxides (NO _x)	6.51	0	6.51
Particulate Matter (PM ₁₀) ¹	0.01	0	0.01
Total Particulate Matter (TSP)	0.03	0	0.03
Regulated Pollutants	Initial	MM01	Total
Sulfur Dioxide (SO ₂)	0	0	0
Volatile Organic Compounds (VOC)	> 113	0	> 113
Hazardous Air Pollutants ²	Initial	MM01	Total
Acetaldehyde	1.2	0	1.2
Acrylonitrile	0.38	0	0.38
Benzene	0.02	0	0.02
Chlorine	0.71	0	0.71
Ethylbenzene	0.02	0	0.02
Ethylene oxide	1.4	0	1.4
Propylene oxide	6.6	0	6.6
Propionaldehyde	2.3	0	2.3
Styrene	1.1	0	1.1
Vinylidene chloride	1.4	0	1.4
Xylene	0.02	0	0.02
Hydrogen chloride	2.29	0	2.29
Total HAPs	17.44	0	17.44

¹ PM₁₀ is a component of TSP.

² The facility is a synthetic minor source of HAPs according to Section 11.0 of permit R13-2561I.

Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the potential to emit >113 TPY of VOC. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, Bayer MaterialScience LLC is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13	Permits for Construction, Modification, Relocation and Operation of Stationary Sources
	45CSR30	Operating permit requirement.
State Only:	45CSR§21-37	Leaks from Synthetic Organic Chemical, Polymer, and Resin Manufacturing Equipment

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2561I	July 19, 2013	

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table," which may be downloaded from DAQ's website.

Determinations and Justifications

The Title V minor modification MM01 incorporates the following changes from R13-2561I, issued on July 19, 2013.

1. Sections 1.1 and 1.2 of Section 1.0 for Emission Units and Active R13, R14, and R19 Permits were updated to the current equipment and current NSR permit number.

a. Emission Units Table

1. Tank T-687 was added under the subheading “PMPO Feed System”.
 - 1.1. The “Emission Unit ID” is “T-687.”
 - 1.2. “Emission Point ID” is “E-687.”
 - 1.3. The “Emission Unit Description” is “Styrene.”
 - 1.4. The “Year Installed” is “2007.”
 - 1.5. The “Design Capacity” is “48,000 gallons.”
 - 1.6. The “Control Device” is “atm vent - Feeds all PMPO systems.”
2. Tank T-687 was removed from the subheading “Storage and Ancillary System”.

b. Active R13, R14, and R19 Permits

1. The “Permit Number” R13-2561I replaces R13-2561H.
2. The “Date of Issuance” is July 19, 2013 which replaces 3/5/2012.
2. In the non-applicable requirements table in Section 3.7.2, the second column for 40 C.F.R. Part 63 Subpart VVVVVV was revised as follows since there is no 40 C.F.R. § 63.11494 (a) (3) in the subpart and the appropriate citation is 40 C.F.R. § 63.11494 (a) (2) :

 “... applicability criterion at 40 C.F.R. § 63.11494 (a) (~~23~~) is not met; ...”
3. T-687 was removed from the Section 6.1.1 table for “Final Product Storage Tanks.”
4. T-687 was included in the Section 6.1.2 table for “Styrene Storage Tanks.”
5. “Attachment A” table additions [underlined] for E-683 and E-687 are as follows:

Emission Point Identification	Source Identification	Source Description	Control Device Identification	Service (VOC/HAP/TAP)	Original 45CSR13 Permit	Included in original R21 RACM Plan	Currently subject to:			Comments/Other Applicable Regulations (MACT/BACT/NSPS/ NESHAP/etc)
							45CSR21	RACT	45CSR27	
E-683	T-683	Tank 683 (Styrene)		HAP	R13-2429A	No	No	No	No	Not in acrylonitrile service <u>Subject to Reg. 21, Section 37 LDAR</u>
<u>E-687</u>	<u>T-687</u>	<u>Tank 687 (Styrene)</u>		<u>Placed into HAP Service 07/2013 under R13-2561I</u>	<u>R13-2429A</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>No</u>	<u>Subject to Reg. 21, Section 37 LDAR</u>

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

No additional non-applicability determinations were made.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date:	Not Applicable
Ending Date:	Not Applicable

Point of Contact

All written comments should be addressed to the following individual and office:

Wayne Green
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1258 • Fax: 304/926-0478
(allen.w.green@wv.gov)

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Response to Comments (Statement of Basis)

Not applicable.